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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/891,655	06/27/2001	Masahide Mohri	Q51805	4405

7590 10/20/2004

SUGHRUE, MION, ZINN, MACPEAK & SEAS  
2100 Pennsylvania Avenue, N.W.  
Washington, DC 20037

EXAMINER
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BOS, STEVEN J

ART UNIT	PAPER NUMBER
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1754

DATE MAILED: 10/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/891,655

Applicant(s)

MOHRI ET AL.

Examiner

Steven Bos

Art Unit

1754

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,4,6-28,31 and 32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,4,6-13,15,16,18-20,22-24,26-28,31 and 32 is/are rejected.
- 7) ☒ Claim(s) 14,17,21 and 25 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on September 1, 2004 has been entered.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1,27 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In claims 1,27, "IIA, IIB, IIIA, IIIB, IVB, VB, VIB, VIIB, and VIIIB" is new matter. The instant disclosure only supports "II, III, IV, V, VI, VII, VIII". It is noted that the instant disclosure recites that Group III includes cerium and uranium. However now that Group IIIA and IIIB are recited it is unclear that cerium and uranium are now included as is required by dependent claims 8 and 10. In both the CAS and IUPAC versions of the Periodic Table neither Group IIIA nor Group IIIB include either cerium or uranium. Group VIIIB is not recited in any Periodic Table of the Elements.

Claims 8,10 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

In claim 8, cerium is recited, however claim 1 recites Group IIIA and IIIB, neither of which includes cerium.  
Also, in claim 10, uranium is recited, however claim 1 recites Group IIIA and IIIB, neither of which includes uranium.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,4,6,11-13,20,23,24,26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jodden '163.

Jodden teaches the claimed process of calcining titanium oxide or precursor thereof in an atmosphere of chlorine gas (see the examples and claims). Since Jodden teaches the instantly claimed process the instantly claimed product would also be formed.

The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have selected the overlapping portion of the range disclosed by the reference because overlapping ranges have been held to be a prima facie case of obviousness, In re Malagari, 182 USPQ 549.

Where the claimed and prior art product(s) are identical or substantially identical, or are produced by identical or substantially identical process(es) the burden of proof is on applicant to establish that the prior art product(s) do not necessarily or inherently possess the characteristics of the instantly claimed product(s), see In re Best, 195 USPQ 430.

Claims 1,4,6-8,11-13,20,23,24,26-28,31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pastor '656.

Pastor teaches the instantly claimed process of calcining metal oxide powders in an atmosphere of halogen gas (see the examples and claims). Since Pastor teaches the instantly claimed process the instantly claimed product would also necessarily be formed.

The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have selected the overlapping portion of the range disclosed by the reference because overlapping ranges have been held to be a prima facie case of obviousness, *In re Malagari*, 182 USPQ 549.

Where the claimed and prior art product(s) are identical or substantially identical, or are produced by identical or substantially identical process(es) the burden of proof is on applicant to establish that the prior art product(s) do not necessarily or inherently possess the characteristics of the instantly claimed product(s), see *In re Best*, 195 USPQ 430.

Claims 1,4,6-10,13,15,16,18-20,22-24,26-28,31,32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brackelsberg '258.

Brackelsberg suggests the instantly claimed process of heating iron and manganese ores, ie. metal oxide precursors, in HCl or chlorine gas and steam, to form iron oxide or manganese oxide. See cols. 2,3. Since Brackelsberg suggests the instantly claimed process the instantly claimed product would also be formed.

The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have selected the overlapping portion of the range disclosed by the reference because overlapping ranges have been held to be a prima facie case of obviousness, *In re Malagari*, 182 USPQ 549.

Where the claimed and prior art product(s) are identical or substantially identical, or are produced by identical or substantially identical process(es) the burden of proof is

on applicant to establish that the prior art product(s) do not necessarily or inherently possess the characteristics of the instantly claimed product(s), see *In re Best*, 195 USPQ 430.

Applicant's arguments filed September 1, 2004 have been fully considered but they are not persuasive.

Applicant argues that the 132 Declaration of Tetsu Umeda shows the product of Jodden to be different than that instantly claimed.

However the Declaration refers to Figures 1-4 and 5-8 none of which were attached to the Declaration which renders same unpersuasive.

Applicant argues that Pastor teaches a process for making oxides of silicon or germanium which have now been excluded.

However Pastor teaches other metal oxides which are included by the instant claims such as yttrium aluminum oxide, yttrium vanadate, etc., in col. 15. Oxides of titanium and zirconium are also suggested in col. 15.

Applicant argues that Pastor discloses only the removal of water from an oxide but does not suggest a process for producing a metal oxide.

However Pastor teaches the same positive process step of heat treating or calcining a metal oxide in the presence of a halogen gas which would produce the instantly claimed calcined metal oxide since the taught process is the same as that instantly claimed.

Applicant argues that Brackelsberg teaches forming pure iron or manganese in contrast to the instant claims which form a metal oxide.

However Brackelsberg recovers a residue of iron or manganese oxide prior to further treatment to form the metallic iron or manganese which meets the instantly claimed process.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven Bos whose telephone number is 571-272-1350. The examiner can normally be reached on M-F, 8AM-6PM but is on increased flexitime sch.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on 571-272-1358. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Steven Bos



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Primary Examiner  
Art Unit 1754

sjb